



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
WASHINGTON, D.C. 20314-1000

REPLY TO  
ATTENTION OF:

14 JAN 2004

CECW-PM (1105-2-10b)

MEMORANDUM FOR Commander, South Pacific Division (CESPD-CM-C)

SUBJECT: Napa River Salt Marsh Restoration Project, California - Feasibility Review  
Conference (FRC) Project Guidance Memorandum (PGM)

1. References:

a. CESPD-CM-P Memorandum dated 7 May 2003, subject: Napa Salt Marsh Restoration Draft Feasibility Report,

b. CECW-PM transmittal of HQUSACE Policy Review Comments for Napa Salt Marsh Restoration Draft Feasibility Report and EIR/EIS dated 15 August 2003, and

c. CESPD-CM-C Memorandum dated 26 November 2003, subject: Napa Salt Marsh Restoration PGM Responses and Request for FRC.

2. The subject FRC was held via teleconference on 6 January 2004. Participants in the teleconference included representatives from the California Department of Fish and Game, State Coastal Conservancy, GAIA Consulting, CESP, CESPD, and HQUSACE as listed on Enclosure 1. A complete summary of the comments and required actions reached during the FRC is provided as Enclosure 2. The conference was held to obtain early HQUSACE involvement in the preparation of the final feasibility report.

3. As discussed during the FRC, the cost-effectiveness analysis, incremental cost analysis, and the adaptive management plan must be provided to Headquarters for review and approval concurrent with preparation, and prior to publication, of the Final Feasibility Report. To assist in expediting the Washington level processing of the final feasibility report, the PGM Compliance Memorandum should indicate how and where each of the remaining concerns was addressed in the final feasibility report.

FOR THE COMMANDER:

Encls

WILLIAM R. DAWSON, P.E.  
Chief, Planning and Policy Division  
Directorate of Civil Works

# Attendance List

## Napa Salt Marsh FRL

1/6/04

<u>Name</u>	<u>Organization</u>	<u>Phone</u>
Jim Conley	COE Planning	415.977.8108
<del>SEAN WHITE</del>	<del>Salmon County</del> WATER AGENCY	707.577.1908
Larry Wyckoff	CA Dept. of Fish & Game	707.944-5542
Fari Tabatabaie	COE, Env. Planning	415-977-8014
Amy Hutzel	State Coastal Commission	510-286-4180
Robin Mooney	CESPD-CM-P	(415) 977-8177
Judy Sheen	CESPN-ET-PF	415-977-8678
Sherin Tolle	CESPN-PPMD-B	415-977-8467
Susanne von Rosenberg	GAIA Consulting, Inc.	510-663-4177
Clark Frenzzen	CESPD-CM-P	415-977-8164
Jeannine Hritz	CESPD-CM-C	415-977-8228
Liane Galal	CESPN-PPMD-B	415.977.8714
Tom Kendall	" - ET-P	415-977-8532
Jean Tarasek	SPN-OC	415-977-8125
Zoltan Montvai	CECW-P	
LEE WARE	CECW-P	
MARK MATUSIAK	CECW-P	
ROBYN COLOSIMO	CECW-P	
KEN ZWICKL	CECW-P	
BILL BAYERT	CERE	

**NAPA RIVER SALT MARSH RESTORATION PROJECT, CALIFORNIA  
Draft Feasibility Report and Environmental Assessment**

**PROJECT GUIDANCE MEMORANDUM**

**1. BACKGROUND**

- a. Project Location.** The study area is located about 30 miles northeast of the City of San Francisco, touching portions of Napa, Sonoma, and Solano Counties, California. The area is on the northeast side of San Pablo Bay, immediately between the Napa River and Sonoma Creek. The study area encompasses the Napa River Unit of the Napa-Sonoma Marshes State Wildlife Area (NSMWA), consisting of 12 ponds (in the 9,640-acre former Napa salt pond complex).
- b. Authority.** The Napa River Salt Marsh Restoration Feasibility Study was authorized by a resolution of the Committee on Public Works and Transportation, U.S. House of Representatives, on September 28, 1994, that the Secretary of the Army review the report of the Chief of Engineers on the Napa River Basin, California, published as House Document 222, Eighty-ninth Congress, First Session, and other pertinent reports, to determine whether modifications of the recommendations contained therein are advisable at the present in the interest of environmental protection and restoration, flood damage reduction, and other purposes.
- c. Non-Federal Sponsor.** The California State Coastal Conservancy (CSCC) is the non-Federal sponsor and cost sharing partner.
- d. Problem Identification.** Diking or filling has destroyed nearly 90 percent of the original tidal wetlands of San Francisco/San Pablo Bays. The project site, historically dominated by tidal salt marsh, was diked and converted to hayfields approximately 150 years ago. Subsequently, in the early 1950s, the diked areas were converted to solar evaporation salt ponds. The project is a part of a larger effort to restore a portion of diked Baylands to tidal action to support endangered and special species (i.e. salt marsh harvest mouse and California clapper rail) recovery, improve water quality, and restore greater ecological balance to the San Francisco Bay overall.
- e. Alternatives.** Initially, twenty-four salinity reduction, seven habitat restoration, and three supplemental water delivery alternatives were considered in the alternative screening state. The screening process narrowed consideration to seventeen alternatives, including the No Action Plan, that were carried forward. All possible combinations of salinity reduction options and habitat restoration options were considered.
- f. Tentatively Recommended Plan.** The tentatively recommend plan is identified as "Alternative 6", a mix of tidal ponds and habitats. This plan was selected as it provides a

balanced mix of pond and tidal habitat, manages restoration related risk through effective use of adaptive management, and is determined to be the most cost effective based on incremental analysis. The plan, as noted earlier will be constructed with two broad categories of outputs in mind: 1) desalination; and 2) habitat restoration. Features aimed at the desalination portion would include a combination of water conveyance and control structures- including intakes, fish screens, outfalls, diffusers, siphons, mixing chambers, and levee breaches. Habitat restoration features would include construction of starter channels and berms, levee lowering, blocking ditches, breaching of ponds to reestablish tidal actions, and maintenance of ponds that currently provide good habitat. Total first cost of the Napa Salt Marsh Restoration Plan is estimated to be \$95,781,000 (April 2002 price levels).<sup>1</sup> With the exception of \$2,600,000 being cost shared 50/50 (recreation features) the project cost sharing responsibilities would use the standard 65/35 ecosystem restoration cost sharing formula, or approximately \$66,000,000 Federal; \$30,000,000 non-Federal (rounded). Annual O&M costs are estimated at \$470,000 per year, including approximately \$200,000 designated as monitoring costs.

**2. REVIEW SUMMARY.** Two policy concerns raised during the review of the AFB document remain unresolved. These issues relate to the incremental analysis of alternatives and non-Federal OMRR&R responsibilities, and are discussed in Section 5.

### **3. DRAFT FEASIBILITY REPORT POLICY REVIEW COMMENTS**

**a. Incremental Cost Analysis.** Some unresolved comments remain regarding the comments made in the AFB review regarding the incremental analysis, as noted below.

The incremental analysis comment of the AFB indicated that using AAHU and average annual costs may be appropriate, since the alternatives under consideration provide for different timing of ecosystem restoration outputs throughout the period of analysis. In particular, it was noted that an incremental analysis should be conducted for the pipeline since its primary function is to accelerate the desalinization of the bittern in Pond 7. This analysis was not accomplished in the draft report, based on the conclusion that all pipeline segments are needed to assure that the amount of recycled water is available to accomplish the conversion of Pond 7 within a 30-year target. The value of this acceleration in habitat conversion needs to be demonstrated. There appears to be some uncertainty regarding the extent to which this pipeline may be necessary, since the report also indicates on page 34 that Cargill, Inc. has found a market for bittern salts from one of their local production facilities and there may be potential for market expansion, whereby physical removal of the bittern could reduce the water requirements for Pond 7 dilution. This issue needs to be explicitly addressed in the plan formulation, particularly since the major investment in the pipeline is primarily related to the desalinization and restoration

---

<sup>1</sup> In April 2003, the San Francisco District, Cost Engineering Section, completed a draft MCACES, which is summarized in the Draft Feasibility Report. Total first cost of the Project is estimated to be \$109,817,000 (April 2003 price levels). The estimate for recreational features is \$2,659,000. The cost-sharing responsibilities are as follows: \$71,000,000 Federal; \$39,000,000 non-Federal (rounded). Annual O&M costs are estimated at \$634,000 per year. Of the Annual O&M cost, \$200,000 is currently designated for monitoring activities.

of only Pond 7. Page 89 indicates that further feasibility studies are to be conducted to investigate the need for all three pipeline segments and the volume and sources of water.

In addition, there is concern that the incremental analysis includes only two alternatives, which are combination plans of restoration measures at all of the ponds. The difference in outputs for the two alternatives results from a different mix of habitat outputs more so than from a substantial change in the scale of investments in the measures being considered. As shown in Table 5.1, the five action plans considered in detail all restore the total 4,770 acres of salt pond into other types of habitat. This produces only minor incremental differences between the plans. The recommended plan is not one of the plans in the incremental cost analysis, nor is it a cost efficient best buy plan- it is a locally preferred plan, which minimizes the maintenance cost of the sponsor. Consideration should be given to the incremental investment in individual ponds or combinations of ponds, which are tied together, as a basis for conducting the incremental analysis. This would give a clearer picture of the investment decisions being made in recommending combination plans. For instance, Pond 3 restoration involves only the cost of about \$13,000 to produce tidal marsh habitats at a very minimal cost. In contrast, Pond 7 requires substantial desalinization and involves the proposed pipeline construction at a cost of about \$25M in order to provide restored pond habitat. These are widely different investments, which are not portrayed in the current incremental cost analysis. These investments and the various levels of outputs in between should be presented in an incremental analysis as a basis for plan formulation and selection.

**District Response:** Concur that the NER plan was not adequately supported in the draft report and the various levels of outputs fully presented. The final feasibility report will present an optimization for Upper Pond desalination and the Federal investment. Based on the written comment above and several subsequent conversations with the HQ review team, the District understands that there are three general concerns that require District action. These actions are:

1. Verify the need for all three pipeline segments;
2. Investigate the feasibility and cost-effectiveness of non-pipeline alternatives to desalinate Pond 7;
3. Individual ponds or combinations of ponds should be considered as the basis for the incremental analysis.

The status of each analysis is summarized below and the results will be included in the final feasibility report.

**Incremental Cost Analysis Concern #1: Need for all three pipeline segments:**

A preliminary cost and qualitative incremental analysis of the pipeline segments are shown in the following table:

Pipeline Segment	Construction Cost (x\$1,000,000)	Expected Average Annual Volume (afy)	Cost per Volume (\$MIL/afy)
Sonoma	11.291	2,600	4,342
Napa	7.978	5,500	1,450
American Canyon	6.598	400	16,495

In order for either the Napa or American Canyon segments to be constructed, it is necessary that the Sonoma segment be included so that the Sonoma County Water Agency can provide the necessary support to Napa and American Canyon through the Joint Powers Authority (JPA) that the three entities intend to form. Although preliminary analysis indicates that the most cost effective segment is the Napa segment, the Napa segment cannot be constructed without the Sonoma segment. In order to construct the Napa segment without Sonoma, a relationship would need to be established. The information we currently have indicates that Napa Sanitary District would not be willing to participate as a non-Federal cost share partner in the absence of a JPA. Therefore, the Sonoma pipeline segment must be considered to be the base increment. Because the American Canyon segment provides water at a cost that is nearly four times greater than that of Sonoma and eleven times greater than Napa, it is expected that it will be dropped from all pipeline alternatives. Thus, the total cost of the two-section pipeline component can be approximated at \$19.3 MIL, rather than \$25.8 MIL for all three sections. The District also plans to include an alternative plan that includes only the Sonoma section of the pipeline, whose cost is estimated at \$11.3 MIL. The results of the incremental analysis on the pipeline segments will use AAHU's rather than AFY and will be presented in the final report.

**Discussion:** The pipeline has been eliminated from the Recommended Plan; however, pipeline information will be included in the Final Report. While the option always exists to recommend the Locally Preferred Plan (LPP), the district has indicated that they will recommend the NER Plan.

**Required Action for Incremental Cost Analysis Concern #1:** Include in the Final Feasibility Report discussion of the pipeline alternatives, as well as alternative(s) using neighboring waters to restore Pond 7. While an option always exists to recommend the LPP, as discussed, the final report is expected to recommend the NER plan.

**Incremental Cost Analysis Concern #2: Feasibility and cost-effectiveness of non-pipeline options for Pond 7:**

The Upper Ponds have the highest salt concentrations and salinity reduction measures here are critical. Numerous measures to decrease Upper Pond salinity were considered in the Draft Feasibility Report and will be documented in the Final Feasibility Report.

Two no-pipeline options that were not presented in the Draft Report will be included in the Final Report. These include 1) physical removal of the bittern (dredging option), and 2) dilution using waters from adjacent sources (Napa Slough and Napa River via Pond 8; neighboring waters option).

Final note to Concern#2: sales of bittern would not be a viable alternative to the proposed Pond 7 restoration. Cargill recently tested the bittern to determine if it could be sold, but the bittern in Pond 7 does not meet the magnesium content specifications for dust control or de-icing applications (the two potential markets for bittern). Additionally, Cargill is able to easily meet all identified demand from its existing operations in the South Bay and has extensive stores of bittern in the South Bay from decades of salt production operations

**Discussion:** District analyzed a number of non-pipeline options, including a dredging alternative that was eliminated due to cost (\$210 million). A neighboring waters alternative will be included in the final array of plans, and will cost between \$8 – 10 M. Neighboring waters will be designated as the NER plan and selected as the recommended plan. There will not be an LPP. The Conservancy (feasibility and PED sponsor) and DFG (construction sponsor) support the plan. SCWA will no longer be a sponsor.

**Required Action for Incremental Cost Analysis Concern #2:** Revise final report to include discussion of the neighboring waters plan as an alternative and include it in the incremental analysis. While an option always exists to recommend the LPP, as discussed during the phone conference, the final report is expected to recommend the NER plan.

**Incremental Cost Analysis Concern #3: Evaluation of individual or combinations of ponds for ICA:**

**Pond Groupings:** The District will use the following pond groupings as a basis for increments in the final array of plans:

- i) Ponds 3, 4, 5, 6, 6A
- ii) Ponds 7, 7A, 8
- iii) Ponds 1, 1A, 2

It is expected that Ponds 3, 4, 5, 6 and 6A will be the most cost effective, thus Ponds 7, 7A and 8 (Upper Ponds) and Ponds 1, 1A and 2 (“Lower Ponds” also include Ponds 3-6A) will be analyzed as next added increments. The District has not yet determined if the Pond 1, 1A, and 2 increment and the Pond 7, 7A, and 8 increment are both cost effective. The District expects that the Upper Ponds will be included in the recommended plan for two basic reasons: 1) omission of Pond 7 would result in an incomplete project that subjects newly established significant habitat to the risk of damage or destruction, and 2) the expense associated with restoration of the Upper Ponds is a reasonable expense when compared with the Hamilton/Bel Marin Keys project which is also located in San Pablo Bay.

**Risk:** The goal of bittern removal in Pond 7 is not only to restore Pond 7 but also to protect the Federal investment and associated habitat in the remainder of the project. The

bittern in Pond 7 poses an ecological risk if released. This risk factor will be discussed in the final feasibility report. In short, bittern is toxic to wildlife, and a catastrophic spill of bittern would result in fish kills and unknown impacts to the threatened and endangered species known to inhabit the area. Federally listed aquatic species known to inhabit the area include Delta Smelt, Split tail, Long fin Smelt and Steelhead. Without restoring Pond 7, the vital habitat provided by the project and the Corps' and local sponsors' substantial investment in the remaining ponds is at risk. This risk has been acknowledged by both State and Federal agencies. Therefore, the Upper Ponds must be included in the project because the project would not be complete if it did not address the bittern problem. The Final Feasibility Report will include a statement from the USFWS addressing the risk posed by Pond 7 to these species.

**Reasonable expense:** The Final GRR for Bel Marin Keys (BMK) Unit V Expansion of the Hamilton Wetland Restoration Project, April 2003, states that the combined Hamilton/BMK project would restore 2526 acres of wetlands. The total project cost will be \$188 million. Assuming that the cost to restore the Upper Ponds would be approximately \$25 million (based on the cost of a three-section recycled water pipeline), the cost of restoring these ponds would be approximately \$33,100/acre compared to \$74,500/acre. This would be a reasonable cost since it is less than half of the cost to restore wetlands at the Hamilton/BMK site.

Project	Costs (x\$1MIL)	Acres Restored	Cost/Acre
Hamilton/BMK (Authorized Cost)	\$188	2,526	\$74,500
Napa Salt Marsh Restoration <i>Total Project</i>	\$110 (Draft Feasibility Report)	9,640	\$11,410
Napa Salt Marsh Restoration <i>Upper Ponds</i>	\$25 (Draft Feasibility Report)	755 acres (Pond 7 – 317) (Pond 7a – 319) (Pond 8 – 119)	\$33,100

#### **Discussion:**

**Pond Groupings:** The pond groupings seem logical; however there is a concern about whether there is enough information to show that these groupings are optimal. The district should show as part of the analysis that pond fates are cost effective. The plan formulation should discuss the reasons why certain ponds were selected to be managed pond vs. tidal marsh and show cost-effectiveness. Presentation of cost effectiveness should compare similar kinds of output, since what is considered cost effective for pond development might be different from what is cost effective for tidal marsh production. The district stated that it is not useful to look at each pond in a vacuum; ponds will act



differently within the system. The district agreed that we need to make sure we have used the most cost-effective, constructable, implementable solution for each pond.

**Risk:** A new analysis shows that bittern in Pond 7 can now be removed in approximately 10 years for approximately \$10 million, compared to 30-50 years and \$25 million, respectively, in the Draft Feasibility Report. The reduced desalination time will result in higher habitat outputs for Pond 7.

**Reasonable Expense:** HQ discouraged using a cost comparison with Bel Marin Keys in the final feasibility report.

**Required Action for Incremental Cost Analysis Concern #3:** The district will provide the cost-effectiveness analysis and incremental cost analysis to HQ concurrent with preparation of the Final Feasibility Report.

**Pond Groupings:** The Final Feasibility Report will be revised to include a narrative explaining how the habitat fate (i.e., managed pond or tidal marsh) of each pond was determined, based on factors such as efficiency, constructability, and regulatory compliance. The district will provide separate cost-effectiveness comparisons among pond/output types (tidal marsh ponds and managed ponds). When there is no cost-effective way of separating ponds, ponds will be combined within these comparisons, and the rationale for these combinations discussed.

**Risk:** The Final Feasibility Report will provide justification for including Pond 7 on the basis of habitat outputs in an ICA. The risk of a Pond 7 breach will be addressed as an added consideration in the feasibility report. The report will also show the appropriate estimated Pond 7 bittern and salinity reduction time (estimated at 10 years), compared to the 30-50 years estimated in the Draft Report.

**Reasonable Expense:** No action required

**b. Cost Sharing.** The cost sharing for the locally preferred plan does not appear to be in accordance with policy. The LPP cost increment above the NER plan should be 100% non-Federal in accordance with paragraph E-3.b.(4) of ER 1105-2-100. The cost sharing shown in the report applies 65% Federal/ 35% non-Federal to the entire cost of the LPP, except for the cost of recreation features which are cost shared at 50%/50%. Therefore, the cost sharing should be revised to show all ecosystem restoration costs for the NER level of investment as 65% Federal/ 35% non-Federal, the restoration costs for the LPP beyond the NER plan as being 100% non-Federal, and the recreation costs as 50%/50%.

**District Response:** The District concurs that the cost sharing responsibilities must be updated. The District will present the MCACES cost estimates for the LPP and NER in the Final Feasibility Report and the cost sharing will reflect the proper division of non-Federal and Federal funding responsibilities, as outlined in the comment above.

**Required Action:** Revise the final Feasibility Report to reflect cost-sharing percentages indicated in the comment. While an option always exists to recommend the LPP, as discussed during the phone conference, the final report is expected to recommend the NER plan.

**c. Program Management Comments**

1. Table 7.1, page 107, shows that completion date of the non-Federal O & M as March 2055. The O & M will only end if the project is deauthorized; this entry should be revised.

**District Response:** Table 7.1 has been revised to replace “March 2055” with “No end date” as the entry under “Finish Date” for O&M.

**Required Action:** The final feasibility report will be revised as indicated in the response.

2. Section 9.2.9.6, page 92 discusses recouping the Federal interest in the proposed pipeline. The second paragraph, first sentence of this section states “SCWA would compensate the Federal government for the residual value of the pipeline.” However, the third sentence of this paragraph states “SCWA would be credited in the calculation of O& M costs they will have put towards maintaining the pipeline’s function and value.” Please clarify why the sponsor would be credited in this manner, given the sponsor’s responsibility to provide O & M for the pipeline.

**District Response:** The District concurs that further clarification on the pipeline value calculation is necessary. The Feasibility Report will be edited to state that when calculating the pipeline value at the time of transfer, the depreciation method will value the pipe as if it had been maintained only to last for the term needed for this project, regardless of any extra O&M (and therefore value) contributed by the non-Federal sponsor to extend the pipeline life beyond its term of use by the restoration project.

**Required Action:** The Final report will include an evaluation of present value as reflected by the District’s response. As discussed during the phone conference, the final report is expected to recommend the NER plan, which does not include the pipeline.

3. Monitoring and Adaptive Management. Pages 98 and 99 discuss the costs of monitoring and adaptive management. The high costs of these tasks require further justification, given the Corps “policy” of limiting such costs to 5% of project cost. In addition, the last paragraph of section 6.3.3 suggests that the Corps cost share the required NPDES monitoring for the project. Normally, the Corps is not responsible for this task. Please explain the rationale for the Corps’ participation for these features.

**District Response:** The District acknowledges that the preliminary monitoring and adaptive management costs presented in the Draft Feasibility Report were higher than the guideline levels provided by Corps policy. The monitoring and adaptive management costs have been scaled down and are now roughly 5% of the project cost. The revised

cost estimate and additional details on the proposed activities will be presented in the Final Feasibility Report.

One of the proposed adaptive management actions is to install additional water control structures in the Upper Ponds if bittern discharge rate is not within the desired range. This decision can only be made by monitoring basic water quality parameters; therefore the District has not made a distinction between water quality monitoring required for adaptive management and permit-related monitoring (i.e., State Water Quality Certification (401 certification)).

Note: The project sponsors are no longer seeking a NPDES permit. The Corps and the sponsor will be preparing a joint application for a waste discharge requirement (WDR) and a 401 certification.

**Discussion:** HQ is concerned with the length of the Monitoring and Adaptive Management time period, as well as policy compliance, and scope of activities. Permit-related monitoring should not be included in the costs. The revised Monitoring and Adaptive Management plan includes only monitoring in support of specific adaptive management activities. The Monitoring and Adaptive Management Plan will provide the linkage between monitoring, adaptive management, project success criteria and project objectives.

**Required Action:** Remove any permit related monitoring from the monitoring and adaptive management plan. The revised Monitoring and Adaptive Management plan will be provided to HQ in advance of the final feasibility report. The extent, duration and end-date of the proposed cost-shared adaptive management activities must be assessed and supported in the Monitoring and Adaptive Management plan.

#### **d. Real Estate**

1. Recreation. Although Table 6.1 includes a \$2.7M entry for "Recreation Features" the description of the recommended plan in Chapter 6 of the report, and the Real Estate Plan (REP) attached as Appendix H, are silent on the features to be constructed and their location relative to the ecosystem restoration LER. The report and REP should be revised to discuss fully the recreation features proposed and the cost sharing sponsor for these features.

**District Response:** A reference will be added to Chapter 6 (The Recommended Plan) of the Final Feasibility Report that refers the reader to Chapter 4 (Plan Formulation), where the recreational features are described under Section 4.9.3.1 (Recreational Features). A map indicating the location of the proposed recreational features will also be added to the Final Report. A discussion of the recreational features will be added to the REP.

**Required Action:** Concur and the final report and REP will be revised as per above.

2. Provision of Recycled Water. Section 6.2.9.1 should be expanded to describe whether the Joint Powers Authority (JPA) is an existing authority; its statutory basis and scope of

authority; what agreements will be required (and with whom) to ensure that the authority -as a separate and distinct legal entity- will be committed to provide sufficient and timely quantities of water; and the required timing for the formation of the JPA, if it does not currently exist, and execution of required agreements.

**District Response:** The Final Feasibility report will be expanded to provide further details on the JPA and its future agreements with the Federal sponsor, as described in the comment above.

**Discussion:** The recommended plan no longer includes recycled water; however, the Sponsor will investigate what water rights must be obtained to implement the project. The Sponsor will consult with the State Water Board to determine what actions it must take under state law to obtain the right and priority to use neighboring waters for the project. The Sponsor will obtain the initial right to use the water and a priority date in time, if needed. These activities are applicable only the upper ponds. The REP will discuss the necessity of the Sponsor obtaining water rights for the successful implementation of the project and, if applicable, the process involved therewith.

**Required Action:** The results of the investigation described above will be included in the REP.

3. Cost Comparison (Section 6.2.9.4). There either is or is not a market for recycled water currently. If there is such a market, the current market value should be described in this section. If there is no market from which to extract market value data, the speculative amounts contained in this section should be deleted.

**District Response:** The speculative market value presented for the recycled water will be deleted from the Final Feasibility Report. This discussion will be replaced with an explanation that the price of recycled water is set according to the cost of the delivery method, and therefore it is not possible to compare current market value of existing recycled water supplies to the value of the water that would be delivered by the proposed pipeline.

**Required Action:** The final report will include a recommended plan that does not involve recycled water or a pipeline and as such, no discussion regarding the market value of recycled water will be included in the final report.

4. Transfer and Recouping of Federal Interest in Pipeline (Sections 6.2, 9.5 and 0.6): The report should provide a persuasive justification that use of the pipeline for a described minimum term of years is a cost efficient approach to project implementation. Further, the report needs to clearly explain the future conditions requirements (i.e., transfer mechanisms and recouping of costs procedures). These future condition requirements are intended to convey future expectations and will likely be included in the Chief's report. To avoid potential for future problems, it is believed that one method for assessing the residual value of the pipeline should be identified in the final report.

**District Response:** The District will present two incremental cost analyses in the Final Feasibility Report: 1) an ICA on the three pipeline sections (Sonoma, Napa, and City of American Canyon) and 2) an ICA on reformulated alternative plans that represent different levels of Federal investment (i.e., pond increments) and that represent different solutions for Pond 7 (pipeline, neighboring water, and dredging). The Final Report will also describe the pipeline transfer mechanism and recoupment of cost procedures.

**Required Action:** The final report will include a recommended plan that does not involve recycled water or a pipeline, and as such, there will be no discussion of pipeline transfer mechanism or recoupment of cost procedures. The final report will also include an ICA on the three sections of pipeline and on the reformulated alternative plans as discussed above.

5. LERRDs (Section 6.3.2): This section must be revised to describe clearly the division of responsibilities between the 2 sponsors for acquisition and provision of the LER (both marsh area and pipeline easements). Further, the nature of "reinforcement" required to the transmission towers should be described to ensure that such work is not a "relocation." If such work is not a facility/utility relocation, description of such work should not be included in a section that describes LERRD responsibilities. Finally, while the last sentence of this section is appropriate information for a comment response, it should be deleted from the report body.

**District Response:** This section will be revised to clearly describe the division of responsibilities between the two sponsors (DFG and SCWA) to show the DFG has acquired and is providing the wetland site (salt ponds) and the SCWA will acquire and provide the necessary LERRDS (easements) for the pipeline component. Further, the "reinforcement" of the transmission towers will be deleted from the section describing the LERRDS responsibilities, since it is a construction cost. A description of the reinforcement to the towers will be described adequately in the Feasibility Report to confirm that it is a construction cost and not a "relocation" incurring a LERRDS responsibility. The last sentence in Section 6.3.2. will be deleted.

**Required Action:** The final feasibility report will be revised to reflect only one sponsor (DFG) and they will provide the necessary LERRDS. The discussion of the tower reinforcement will be revised in the final as described in the response above.

6. Adaptive Management (Section 6.3.3.6): The District should explain the rationale for sharing costs to "address the needs of adjacent and near-by projects".

**District Response:** The District will strike Section 6.3.3.6 from the Final Feasibility Report and is advising the non-Federal sponsor to participate in the public review process to ensure mitigation for any negative impact that future projects might have on the Napa Salt Marsh Project.

**Required Action:** The final report will be revised as described in the response above.

7. Adaptive Management (Section 6.3.3.7): This section indicates that this phase will continue for a period of years that varies among ponds. It also indicates that upon conclusion of such periods, the Sponsor will have a continuing monitoring responsibility. What is not clear, and should be explained in the report, is whether the Sponsor will have any OMRR&R responsibility to perform adaptive management activities that are not fully implemented during this cost shared period (either because Federal appropriations are insufficient during, or because the need is identified after the close of, the period).

**District Response:** The following text has been added to Section 6.3.3.7 of the Feasibility Report: "If an adaptive management construction need is identified during the adaptive management period, the activity will be cost shared regardless of the appropriation situation and regardless of when it is constructed; the non-Federal sponsor would expect reimbursement for building these features without Federal funds if appropriations do not keep up with funding needs. If the need were identified after the adaptive management period, then the non-Federal sponsor would be responsible for the costs."

**Discussion:** A clear and supportable end date for the period of adaptive management will be defined in the Final Feasibility Report, and it will also be the clear end date for any cost-shared item.

**Required Action:** see action for comment c.3.

8. Implementation Sponsors. Chapter 7 of the report should be revised to reflect the agency or agencies that will be signing the PCA as non-Federal Sponsor(s) for project implementation including division of duties if applicable (including obtaining and providing recycled water) and respective capabilities to perform such duties.

**District Response:** The District concurs and will revise Chapter 7 accordingly.

**Required Action:** The final report will be revised to indicate one sponsor.

9. Federal Responsibilities (Section 7.3.1): The District should revise this section to include the cost shared monitoring and adaptive management phase.

**District Response:** The District concurs and will revise Section 7.3.1 accordingly.

**Required Action:** The final report will be revised as described in the response above.

10. Section 8.1: In the 4th bullet, change "relocation" to "replacement."

**District Response:** The District concurs and will revise the final report accordingly.

**Required Action:** The final report will be revised as described in the response above.

11. Real Estate Plan (REP) Comments:

(a). For ease of review and comments, the REP should be revised to number the paragraphs and pages.

**District Response:** The District concurs and will revise the report accordingly.

**Required Action:** The final report will be revised as described in the response above.

(b). The first sentence of the first paragraph should be revised to read: " The purpose of this project is to restore a portion ..."

**District Response:** The District concurs and will revise the report accordingly.

**Required Action:** The final report will be revised as described in the response above.

(c). Page 2, second full sentence: The District should confirm that "Cargill Salt" acquired the acreage with the listed public funds or revise the sentence appropriately.

**District Response:** The District concurs and will revise the report accordingly.

**Required Action:** The final report will be revised as described in the response above.

(d). The acreage and estimated value of the pipeline easements should be added to the real estate plan.

**District Response:** The District concurs and will revise the report accordingly.

**Required Action:** The final report will be revised as described in the response above.

(e). A brief description of the recreation features to be constructed, their location, and crediting concepts should be added to the REP.

**District Response:** The District concurs and will revise the report accordingly.

**Required Action:** The final report will be revised as described in the response above.

(f). Sponsor Assessment: The form assessment should be revised to name the Sponsor at issue with a signed copy included in the REP.

**District Response:** The District concurs and will revise the report accordingly.

**Required Action:** The final report will be revised as described in the response above.

## 12. NER Plan Description:

A. Page 16 of the main report states that the Cargill pipeline section was sold to the DFG; the REP and main report should be reviewed to eliminate inconsistent statements.

**District Response:** The District concurs and will revise the REP and main report accordingly.

**Required Action:** The final report will be revised as described in the response above.

B. The second sentence in the paragraph preceding the table should be revised to read: "Because the pipeline will be buried and will not be removed as part of the project, it is considered real property with ownership vesting in the owner of the permanent pipeline easement."

**District Response:** The District concurs and will revise the REP and main report accordingly.

**Required Action:** References to pipeline will be removed from the REP.

### e. **Legal Issues**

1. Section 2.3.2.2, Funding Constrains Ability of DFG to Repair and Maintain Existing Infrastructure, Making Breaches Likely in the Near Future, and Section 3.3.3.1 Water Control Structures Function in Long Term. These sections state that DFG has had problems maintaining the levee system and the water control structures. The report should make it clear that DFG will be able to operate, maintain, repair, replace and rehabilitate the ecosystem restoration project as needed following construction. Given that the state has experienced problems maintaining the existing system in the past, the report should explain that the project OMRR&R responsibilities are expected to cost significantly less than the cost to maintain the current levee system and the current water control structures. Such documentation is important because the report concludes, in section 7.4, that DFG has successfully met its financial commitment in the past.

**District Response:** The District will explain in the Final Feasibility Report that the project OMRR&R responsibilities are expected to cost significantly less than the cost to maintain the current levee system and the current water control structures (Section 7.4 Views and Financial Capability of the Sponsor).

**Required Action:** The final report will be revised as described in the response above.

2. Section 6.2.9.6 Recouping of Federal Interest in the Pipeline. Recommend substituting "will" for "would" in the last phrase of the last sentence of the first paragraph. Section 6.2.9.6 Recouping of Federal Interest in the Pipeline. The last paragraph provides that the District will consider the option of transferring pipeline



ownership to SCWA following pipeline construction. Recommend that the District, with the assistance of Division and HQ, consider any such arrangements early and include such description in the Chief's report. Please verify with RE that this is appropriate. Additionally, this would require NEPA documentation in this report.

**District Response:** The District will consider the option of transferring pipeline ownership to SCWA following pipeline construction and will rely on SPD and HQUSACE to provide guidance on how to incorporate this arrangement into the Chief's Report. Appropriate NEPA documentation would be provided at the time of the transfer.

**Required Action:** The final report will include a recommended plan that does not involve recycled water or a pipeline.

3. Section 6.3.2 provides that both DFG and SCWA will be non-Federal sponsors for the Napa Salt Marsh project. The non-Federal project sponsor is required to agree to all local cooperation requirements, not just cost-sharing. Current Corps policy places a high preference on implementing a project through a secure partnership with a single sponsor. While it is not uncommon for sponsors to enter into cooperative agreements or sub-agreements with other entities to enable it to provide all aspects of this required cooperation, the Corps normally prefers to avoid the additional burden of reviewing the capabilities and commitment of such third parties and relying upon cooperation among various parties during project implementation. If non-Federal interests desire multiple sponsorship, the District should request that such interests provide a compelling reason. If multiple sponsorship is deemed to be absolutely necessary, the report should document whether and in what manner any local cooperation requirements will be divided among the multiple parties, including assignment of liability risk.

**District Response:** Despite the Corps preference for a single sponsor, two sponsors are necessary for this project. The Department of Fish and Game and the Sonoma County Water Agency each have unique interests and capabilities related to this project. While DFG owns the land that is the focus of the project, SCWA owns the land that is necessary for the pipeline. While DFG lacks the ability to condemn property, SCWA has such authority. While DFG has an institutional interest in environmental restoration, SCWA has an interest in putting its recycled water to a beneficial use. DFG's obligations focus on the salt ponds, while SCWA's obligations focus on the supply of water to the project. Thus, each sponsor's involvement is absolutely necessary for the project's success. Although each sponsor's interests and capabilities are unique, their combined involvement results in synergy that greatly benefits the project.

**Required Action:** The final report will include a recommended plan that does not involve recycled water or a pipeline. The final report will only include one non-Federal sponsor.

4. Section 6.3.3.6 Effects on Nearby Projects. The non-Federal sponsors have a duty to prevent obstructions of, or encroachments on, the project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) which might reduce

the ecosystem restoration, hinder its operation and maintenance, or interfere with it proper function, such as any new development on project lands or the addition of facilities which will degrade the benefits of the project. This paragraph appears to state that the District will cost share such actions as adaptive management. Please clarify the intent of this section.

**District Response:** See Response to Comment 3.d.6.

**Required Action:** refer to action for Comment 3.d.6.

5. Section 8.2 Recommendations. The request that the project be authorized at the funding level herein should be deleted. Typically, Corps projects are first authorized for construction by the authorizing committee and then the appropriating committee appropriates funds for the implementation. The recommendation section also describes the costs for the **combined project**; the project should be referred to as the Napa Salt Marsh. Finally, the recommendation should use the Corps' terminology, i.e., adaptive management instead of minor modifications.

**District Response:** The District concurs and the report will be revised as directed.

**Required Action:** The final report will be revised as described in the response above.

6. Section 8.2 Recommendations items of local cooperation. The items of local cooperation contains terms and conditions that do not apply to this project. In particular, we do not believe that there are any ongoing and potential future remediation activities, including CERCLA covered actions, on the property necessary for the project. This office recommends that all descriptions of local cooperation in the report, including monitoring and adaptive management, be combined in a single comprehensive list. If more detailed discussion of certain items is necessary, any such discussion should still refer to a single comprehensive list included in the report. This office offers the following draft list. The District should review this list carefully, with the assistance of its Office of Counsel, and revise as needed to address the needs of the current project, including an item of local cooperation for monitoring and adaptive management.

a. Provide 35 percent of the separable project costs allocated to environmental restoration, 50 percent of the separate project costs allocated to recreation, and 100 percent of the costs allocated to the locally preferred plan (LPP) which are in excess of the costs allocated to the National Ecosystem Restoration Plan (NER), as further specified below:

(1) Enter into an agreement that provides, prior to execution of a project cooperation agreement for the project, 25 percent of design costs for environmental restoration and recreation features and 100 percent of design costs allocated to the LPP which are in excess of the costs allocated to the NER;

(2) Provide, during construction, any additional funds needed to cover the non-federal share of design costs;

(3) Provide all lands, easements, and rights-of-way, including suitable borrow and dredged or excavated material disposal areas, and perform or assure the performance of all relocations determined by the Government to be necessary for the construction, operation, and maintenance of the project;

(4) Provide or pay to the Government the cost of providing all retaining dikes, wasteweirs, bulkheads, and embankments, including all monitoring features and stilling basins, that may be required at any dredged or excavated material disposal areas required for the construction, operation, and maintenance of the project; and

(5) Provide, during construction, any additional costs as necessary to make its total contribution equal to 35 percent of the separable project costs allocated to environmental restoration and 50 percent of the separable project costs allocated to recreation;

b. For so long as the project remains authorized, operate, maintain, repair, replace, and rehabilitate the completed project, or functional portion of the project, including mitigation features, at no cost to the Government, in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and any specific directions prescribed by the Government in the OMRR&R manual and any subsequent amendments thereto;

c. Give the Government a right to enter, at reasonable times and in a reasonable manner, upon land which the local sponsor owns or controls for access to the project for the purpose of inspection, and, if necessary, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the project;

d. Comply with Section 221 of Public Law 91-611, Flood Control Act of 1970, as amended, and Section 103 of the Water Resources Development Act of 1986, Public Law 99-662, as amended, which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element;

e. Hold and save the Government free from all damages arising for the construction, operation, maintenance, repair, replacement, and rehabilitation of the project and any project-related betterments, except for damages due to the fault or negligence of the Government or the Government's contractors;

f. Keep and maintain books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to the project to the extent and in such detail as will properly reflect total project costs;

- g. Perform, or cause to be performed, any investigations for hazardous substances that are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601-9675, that may exist in, on, or under lands, easements or rights-of-way necessary for the construction, operation, and maintenance of the project; except that the non-Federal sponsor shall not perform such investigations on lands, easements, or rights-of-way that the Government determines to be subject to the navigation servitude without prior specific written direction by the Government;
- h. Assume complete financial responsibility for all necessary cleanup and response costs of any CERCLA regulated materials located in, on, or under lands, easements, or rights-of-way that the Government determines necessary for the construction, operation, or maintenance of the project;
- i. To the maximum extent practicable, operate, maintain, repair, replace, and rehabilitate the project and otherwise perform its obligations in a manner that will not cause liability to arise under CERCLA;
- j. Prevent obstructions of or encroachments on the project (including prescribing and enforcing regulations to prevent such obstruction or encroachments) which might reduce the level of protection it affords, hinder operation and maintenance, or interfere with its proper function, such as any new developments on project lands or the addition of facilities which would degrade the benefits of the project;
- k. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public law 91-646, as amended (U.S.C. 4601-4655), and the Uniform Regulations contained in 49 CFR Part 24, in acquiring lands, easements, and rights-of-way, and performing relocations for construction, operation, and maintenance of the project, and inform all affected persons of applicable benefits, policies, and procedures in connection with said Act;
- l. Comply with all applicable Federal and State laws and regulations, including, but not limited to, Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto, as well as Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army", and all applicable Federal labor standards and requirements, including but not limited to 40 U.S.C. 3141- 3148 and 40 U.S.C. 3701 – 3708 (revising, codifying and enacting without substantial change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c *et seq.*);
- m. Provide the non-Federal share of that portion of the costs of mitigation and data recovery activities associated with historic preservation, that are in excess of 1 percent of the total amount authorized to be appropriated for the project, in accordance with cost sharing provisions of the agreement;

n. Not use Federal funds to meet the non-Federal sponsor's share of total project costs unless the Federal granting agency verifies in writing that the expenditure of such funds is authorized by Federal law;

o. Provide and maintain necessary access roads, parking areas, and other public use facilities, open and available to all on equal terms;

p. At its sole expense, obtain and provide all water necessary to implement, operate and maintain the project;

**District Response:** The Final Feasibility Report will contain an amended list of items of local cooperation, based on the template provided above. The District has reviewed this list, with the assistance of its Office of Counsel, and has decided to follow a conservative approach of retaining all items in the template, including the item pertaining to CERCLA, even if CERCLA issues are not anticipated.

**Required Action:** The final report will be revised as described in the response above and reflect the NER recommendation, and will also not recommend a LPP.

**f. Editorial comments**

**Required Action:** The final report will be revised as per all of the following editorial comments.

1. Alternatives 7 and 8 show no values for Total Upland Acreage. It is not clear why that would be the case, given that those plans include both smaller and larger lengths of levee lowering than alternatives 6, 9, and 17, which each show upland acreage values of 68. Further explanation is needed.

**District Response:** The District will revise the Final Feasibility Report to reflect the correct values for Total Upland Acreage for Alternatives 7 and 8.

2. Table 5.1. The last column indicates that the values are habitat units, however subsequent tables and discussions show these values are AAHU. The heading in Table 5.1 should show AAHU for consistency.

**District Response:** The District concurs and will revise the report as directed.

3. Executive Summary. The last paragraph on page ii, SUMMARY OF COSTS, has a sentence that could be construed to mean that O&M follows completion of **both** construction and adaptive management. Recommend revising to clearly separate the initiation of O&M after construction and the concurrent nature of the limited period for federal cost shared adaptive management.

**District Response:** The District concurs and will revise the report as recommended.

4. Introduction. Section 1.2 Study Purpose and Scope, 3<sup>rd</sup> bullet on page 1. The third bullet seems to have two separate thoughts – determining the NER and compliance with laws, regulations and policies. Recommend separating the two sentences by creating a new bullet (and correct the spelling error):

- Assures that the project is in compliance with applicable **statutes**, executive orders and policies, and in accordance with current budgetary priorities;

**District Response:** The District concurs and will revise the report as recommended.

5. Footnote 1, page 2. Second sentence seems to be missing the word “water”. The SCWA’s mission statement is to provide a safe, reliable **water** supply for growing cities, towns....

**District Response:** The District concurs and will revise the report as recommended.

6. Section 4.4 Design Considerations. Recommend substituting “will” for “would”.

**District Response:** The District concurs and will revise the report as recommended.

**4. RESOLVED AFB ISSUES.** District responses and report revisions adequately address the following policy review concerns, except as noted. The two unresolved concerns are referenced in the draft feasibility report review comments.

**a. Project Benefits.** The district has used habitat acreages as the parameter for measurement of environmental outputs. Increases in subtidal, intertidal low marsh and high marsh acreage were calculated for the various alternatives (Tables 4-1, 4-2, Incremental cost analysis “tables” pages 75 and 76). Further these acreages were converted into “habitat units” Table 4-3, to provide total habitat units. Unquestionably tidal marsh/ pond habitat represents valuable outputs, but this simplistic analysis provides no distinction between any of the various discrete features. With the exception of gross acreage, gives no measurement of difference in quality between any existing wetland habitat in the project area now, and quality changes (if any) to that same habitat after desalination takes place. What changes (specifically) in biota/productivity is this project expected to produce. There is no indication to the reader what species are being benefited. Reviewers of the report will not be able to identify the real benefits to the ecosystem from this project or be able to compare the ecosystem with and without the project. The district should provide an analysis that describes habitat gains for each of the alternatives evaluated and the species of animals that will be benefited and how much they will be benefited. District needs to change “habitat unit” metric from simple acreage to some sort of scientific based “HU” such as those HU’s derived from using the U.S. Fish and Wildlife developed Habitat Evaluation Procedure (HEP), or some other such scientific-based evaluation based methodology. Guidance for measurements of environmental benefits can be found in ER 1105-2-100, paragraph C-3d (5).

**District Response.** Based on the HEP analysis from USFWS, the ICA will be revised to reflect the HEP analysis, rather than the acreage analysis provided as a placeholder in the AFB package. The results of the revised ICA will be presented at the AFB conference. The Draft Feasibility Report will provide information on the species that use each type of habitat restored by the proposed project. [During the IRC the District will present their proposed methodology to address the specific request to provide analysis that describes the species of animals that will be benefited and how much they will be benefited. The District requests information regarding how other Districts have addressed this concern.]

**Discussion.** The district briefly discussed the HEP analysis conducted since the provision of AFB read ahead materials to HQ for review. The district explained that a good concentration of native species exists within the project area and the involved estuary is locally, regionally and perhaps nationally significant. The importance of telling the restoration story was discussed, particularly in terms of the guilds used in the HEP analysis. The district acknowledged the need to discuss the relative importance of the guilds from a local, regional and national perspective. In addition, the need to document the involvement and views of the USFWS within the draft report was discussed. Further, the need to discuss the reasonableness of the restoration costs, particularly in terms of costs/acre, particularly for this part of the country, within the feasibility report was discussed. Finally, the vertical team discussed the without project condition and it was generally acknowledged that the without project condition provides conservative estimates of outputs. The conservativeness of the outputs should also be acknowledged in the draft feasibility report.

**Required Action.** The district will incorporate the information presented and discussed at the AFB in the draft feasibility report. Specifically, the district will explain the importance of the proposed restoration action in terms of species, significance, costs, etc.

**Action Taken.** Information regarding the significance of the restoration action was added to Section 2.1 (National Objective), Section 2.4.1 (Ecosystem Restoration and Incidental Economic Benefits), and Section 5.1.1 (Alternative Benefits). The ICA, presented in Section 5.2.1 (Incremental Cost Analysis) was revised to include Habitat Units as the project outputs.

**HQUSACE Review Team Comments.** Issue resolved.

#### **b. Real Estate.**

1. "Value of Real Estate" The Sponsor objects to use of "agricultural" as the highest and best use (H&BU) classification for valuing the fee lands required for the project because it results in an unacceptably low value estimate. Rather, the Sponsor asserts that "mitigation" should have been the classification used with the result being selection of comparable sales of greatly increased value on a per acre basis. Because the proposed cost-sharing sponsor already owns fee in the land at issue, the direct project impact is as to the amount of total project costs to be shared and the amount of credit to be afforded

the sponsor. However, apparently there also is concern that releasing a draft report for public review that recites the value as currently estimated would cause a negative ripple effect on the proposed acquisition of other lands in the area by the sponsor. This concern needs to be resolved prior to release of the draft document for public review.

**District Response.** The District concurs with the comment. (An IRC to discuss the issues raised in the comment will be scheduled prior to the AFB.) Please refer to comment responses below for further clarification.

**Discussion.** The district explained that an extensive market survey was conducted. This survey supported original conclusions and no changes to the gross appraisal are warranted at this point. An appraisal of LER provided by the non-federal sponsor for crediting purposes will be made at the time of construction consistent with standard business practices. It was explained that the current sponsor (Coastal Conservancy) would likely not be the sponsor for PED and construction activities. It is anticipated that the California Department of Fish and Game (CADFG) will sponsor PED and construction for this project. The CADFG owns the lands in question in fee.

CADFG acknowledged that they initially expressed concerns over the estimates developed by the district since they were lower than the land purchase price. A 1994 appraisal indicated \$3,400/acre was the correct value however the appraisal methods were unacceptable. While CADFG accepts the results of the market survey, they did indicate they were hopeful the costs will increase in PED. The Coastal Conservancy expressed similar concerns. The need to outline a process to address the sponsors concerns was also discussed.

At one point, the sponsor was concerned about releasing the draft feasibility report to the public due to some ongoing negotiations for other properties. The sponsor explained that the South Bay acquisition is complete and as a result, such concerns no longer exist.

The district explained that the pipeline related easements have not been included in the gross appraisal at this point. As a result, costs will increase, although the increase is not expected to be significant.

**Required Action.** The district will include discussion of the LER value estimate in the Real Estate Plan that supports the draft feasibility report.

**Action Taken.** The Real Estate Plan (Appendix H) includes a discussion of the LER value estimate.

**HQUSACE Review Team Assessment.** Issue resolved.

2. Federal acquisition guidance clearly states that a non-economic use -such as "preservation", "conservation", or "natural lands"- is not a proper basis for assessing fair market value. See Uniform Appraisal Standards for Federal Land Acquisition (2000) at pp.35-36. However, what is not clear from the District's description of the issue is



whether the Sponsor urges use of a non-economic use as the H&BU here or whether its position is that there is a market for lands in the area that are suitable for mitigation purposes. In a telecom held 28 August 2002 among HQ, Division, Sacramento District and San Francisco District Real Estate staff, the District agreed that it would perform a market survey in the area to determine whether there is an identifiable local market for lands for mitigation purposes and whether the lands at issue are comparable to those identified. Even if a market exists for mitigation purposes, significant concern was expressed whether the tract at issue could be considered as part of that market given the extensive salt concentrations that give rise to the restoration opportunity. Once market survey information is obtained and discussed with the Sponsor, the nature of the valuation issue can be better defined and resolved. The District should assure sufficient and timely resources are dedicated so that an early IRC can be scheduled to fully resolve outstanding issues such as this prior to the release of the draft feasibility report for public review.

**District Response.** The Sponsor is not requesting that a non-economic use be considered as the H&BU but is asking that the appraiser consider an economic H&BU of mitigation lands for development. In response to the 28 August 2002 telecom, SPK-RE has conducted a market survey to determine whether there is an identifiable local market for lands for mitigation purposes and whether the lands at issue are comparable to those identified.

**Discussion.** See Discussion section of item 2b1.

**Required Action.** See Required Action section of item 2b1.

**Action Taken.** See Action Taken section of item 2b1.

**HQUSACE Review Team Assessment.** Issue resolved.

### 3. Other Real Estate Issues.

(a) A comprehensive Real Estate Plan (REP) prepared in accordance with Chapter 12 to ER 405-1-12 must be included in the draft and final feasibility report versions. Among other things, the REP should: 1) clearly describe the ownership of the existing levees that will be modified, how the right to modify them will be provided, and the Federal project history, if any, of such levees; 2) discuss whether the transmission tower reinforcement work (see p. 87 of the AFB documentation) is a relocation; and 3) describe that a permanent easement will be required for the entire length of the pipeline location (not temporary as described in Issue 2 of the AFB documentation).

**District Response.** The District generally concurs with the comment. A comprehensive REP will be included in the Draft Feasibility Report. Utilities, levees, and any other issues will be fully addressed in the REP. Subsequent to a recent discussion between SPD and SPN staff, it is the District's understanding that a temporary work area easement would be considered as sufficient for the pipeline component since the pipeline will be a

delivery system for fresh water for the project for a portion of the project's life, but will not be a required project feature for the entire life of the project. This assumption will be verified with HQUSACE during the IRC. Please note that the limited portion of the pipeline that will directly connect to the project that would normally require a permanent pipeline easement is located on lands that the Sponsor already owns in fee.

**Discussion.** CADFG currently owns the existing levees, and as a result, no modification to such ownership is required. Treatment of the transmission tower reinforcement work as a relocation should be consistent with similar work conducted by Sacramento district.

The pipeline is a project feature and the district will develop an appraisal for a permanent easement. The sponsor has an interest in owning the pipeline once it is no longer needed for the project. It is not clear how and when the disposition of the pipeline would proceed. At this point, the district estimates the pipeline will be needed for 15-30 years. The pipeline should be treated similar to other similar Corps projects, such as Tres Rios, AZ. That is, the construction of the pipeline should be a cost-shared feature and the provision of water is treated as an associated cost and is 100% non-federal.

The district explained that the pipeline is sized for the project for 75% of its length and oversized for the remaining 25%. The oversize is intended to allow for future additional water from other sources. It was discussed that the cost and need for the oversized length of pipe needs to be clearly discussed in the draft feasibility report.

**Required Action.** The district will include a comprehensive REP in the draft feasibility report. In development of this REP, the district will consult with Sacramento district regarding the treatment of transmission tower reinforcement work. With regards to the pipeline, the district will present the pipeline as a cost-shared feature, similar to the Tres Rios, AZ project. Accordingly, the sponsor will be required to perform O&M for so long as needed for the federal project and permanent pipeline easements will be required. Finally, the district will discuss the need for oversizing any length of the pipeline in the draft feasibility report.

**Action Taken.** The REP (Appendix H) and draft report present the pipeline as a cost-shared feature and the sponsor's O&M duties are discussed in Section 6.2.9.7 (Responsibilities of the Non-Federal Sponsor) of the draft report. The possibility of increasing the pipeline size during PED is discussed in Section 6.2.9.1 (Use of Recycled Water During Salinity Reduction and for Pond Management). In the draft report and the accompanying MCACES, the pipeline was sized only to accommodate the water immediately available to the project.

**HQUSACE Review Team Assessment.** Issue resolved.

(b) Monitoring and adaptive management concepts as cost shared items must be carefully distinguished from OMRR&R responsibilities in the draft and final feasibility reports. Duration of monitoring and adaptive management efforts being proposed is significantly more robust than normal. Extent (both duration and scale) needs further

exposition/justification. Further, the report versions should clearly reflect that the Sponsor's OMRR&R duties will commence upon the District Engineer's notice to the Sponsor that physical construction of the project, or functional portions thereof, is complete. Upon such notice, the period of cost-shared monitoring and adaptive management will begin.

**District Response.** The District concurs with the comment, and the Draft Feasibility Report will distinguish between monitoring/adaptive management and OMRR&R responsibilities and costs. The draft report will clarify that OMRR&R will be a non-cost-shared Sponsor responsibility. The features and costs associated with monitoring/adaptive management and OMRR&R will be presented at the AFB conference.

**Discussion.** The relationship between monitoring/adaptive management and OMRR&R is not clear and needs to be clarified in the draft feasibility report. It was agreed that once physical construction is complete both monitoring/adaptive management and OMRR&R activities begin and overlaps may exist (reference PCA Article II). However, it is not clear when adaptive management ends. To the extent practicable, the draft feasibility report needs to specify the activities associated with adaptive management and the point at which such activities cease or become OMRR&R.

It was agreed that adaptive management requirements should be natural process dependent. That is, adaptive management should only be necessary for so long as adjustments are required to effect authorized outcomes. The district explained that this project is unique (i.e. salt marsh restoration) and as a result, adaptive management is necessary to ensure outcomes. In order to facilitate the identification of a reasonable adaptive management plan, it was agreed that the district would develop a “white paper” that lays out the adaptive management concept including activities, timing, permit requirements, responsibilities, costs, and decision points. This white paper will be developed, in consultation with SPD, and provided to HQ for review. Following review of this white paper, a conference call will be held to discuss and come to terms on the scope of adaptive management being proposed for the project prior to release of the draft feasibility report.

**Required Action.** The district will develop a white paper that outlines the monitoring/adaptive management concept being proposed for this project. Following review of this white paper, a conference call will be held among the vertical team to discuss the monitoring/adaptive management plan and its acceptability. This conference call will determine how the adaptive management plan will be described in the draft feasibility report. Concurrently, HQ agreed to review recent adaptive management plans, particularly those from SPD, to determine their applicability to this project.

**Action Taken.** The district developed a white paper outlining the monitoring/adaptive management concept, which was discussed during an IRC with HQ on 14 March 2003 (See IRC MFR, dated 10 April 2003). The project’s monitoring, adaptive management, and O&M requirements are provided in Section 6.3.3 (Monitoring and Adaptive

Management Time Period and Process) and Section 6.3.4 (Post-Construction Operations and Maintenance). Details regarding monitoring and adaptive management are provided in Appendix G (Monitoring and Adaptive Management Plan).

**HQUSACE Review Team Assessment.** Issue resolved.

(c) Unless clearly authorized for a term certain, the duration of a Sponsor's OMRR&R duty is for so long as the project remains authorized. Assuming this will be the case here, all statements referring to a "project life of 50 [or other number] years" must be deleted from the report unless such statements are intended to mean, and are restricted to, the period of benefit and cost analysis. See, for example, p. 88 and Issues 2 and 3 in the AFB documentation.

**District Response.** The District concurs with the comment and will delete all references to a project life of 50 years from the Draft and Final reports. References to a 50-year economic life will be retained in the report, but will be distinguished from the project life, which is indefinite.

**Discussion.** Noted.

**Required Action.** The district will remove reference to 50-year project life from the draft feasibility report.

**Action Taken.** Change made as directed.

**HQUSACE Review Team Assessment.** Issue resolved.

**c. Justification for Recreational Features.** The AFB material notes that recreational features are included in each of the plans; however there appears to be no analysis of the justification for these features as part of the recommended plan. Paragraph 5.b.of Policy Guidance Letter No. 59, entitled Recreation Development at Ecosystem Restoration Projects, indicates that reports recommending recreation development will clearly present the formulation and justification of the recreation plan to be recommended for Federal implementation. Incremental justification of recreation features will be demonstrated in the report. The district should present in the final report a summary of the justification for recreational features included in the recommended plan.

**District Response.** The District concurs with the comment and will provide a justification in the Draft Report. The results of the justification analysis will be presented at the AFB conference.

**Discussion.** The district explained that the recreation features being considered are consistent with PGL 59 and reemphasized that ecosystem restoration is the main project purpose. The district acknowledged the need to ensure proposed recreation features would not delay the realization of ecosystem restoration outputs.

**Required Action.** The district will document in the draft feasibility report that the proposed recreation features are consistent with guidance and are compatible with the ecosystem restoration project purpose.

**Action Taken.** Discussion of the compatibility of the recreational features to the ecosystem restoration project purpose is provided in Section 4.9.3.1 (Recreational Features) of the draft feasibility report and the economic justification of the features is provided in Appendix E (Economics Appendix).

**HQUSACE Review Team Assessment.** Issue resolved.

**d. Incremental Cost Analysis.** The discussion of incremental costs among the leading alternatives on page 76 shows the incremental cost of the additional 299 units for alternative 7 as \$28,041 beyond the level of investment in alternative 6. However, the value of \$28,041 represents the average cost per acre for 4,100 acres. The incremental cost for the additional 299 acres would be \$64,165  $(\$114,966,576 - \$95,781,381 / 299)$ , which is substantially higher than the initial level of investment of \$25,139/acre for the 3,801 acres in alternative 6. It is not clear from the summary of alternative costs how the annual costs for operations and maintenance are being addressed in the incremental cost analysis and whether the plan selection would be different with an annualized analysis. It may be appropriate for the district to display an incremental analysis based on annual costs and outputs, given that some of the alternatives provided outputs in a more accelerated timeframe than the selected alternative.

**District Response.** The District acknowledges the calculation error in the ICA included as a placeholder in the AFB package. An ICA using USFWS HEP values will be presented during the AFB conference and in the Draft Feasibility Report. This ICA will be performed based on annual costs and outputs, including annualized OMRR&R costs.

**Discussion.** See Discussion section of item 2a.

**Required Action.** See Required Action section of item 2a.

**Action Taken.** See Action Taken section of item 2a.

**HQUSACE Review Team Assessment.** The incremental cost analysis has incorporated HEP habitat values. The issue is resolved.

**e. Inconsistencies/ Editorial.**

(1) Particularly for an “AFB” level of documentation, field has provided a Herculean effort. Unfortunately with such a level of effort, inconsistencies are often the result. Reader/reviewer has an extremely difficult time sorting out all the various alternative evaluations, incremental analysis, various features, et al. Clarity and brevity, wherever possible, is strongly encouraged. Report should be carefully checked to eliminate such inconsistencies and minimize opportunities of confusion. For example: Table 3-1 should indicate that a breach is proposed in Pond 5 for Option 1C, rather than Intake from Napa

River in order to be consistent with the information on Figure 3-8; the acreages shown for the No Action Plan and the various alternatives in Tables 4-1 and 4-2 vary slightly from 9,453 to 9,458. It is not evident why there should be any difference in acreage for the areas being considered under the No Action Plan, the various alternatives after 50 years, and the alternatives at their end state. Further explanation of the variation in acreage should be provided or the figures should be adjusted so that they are identical for the without- and with-project conditions.

**District Response.** The District concurs with this comment and will revise the Draft Feasibility Report to emphasize clarity and brevity, and to eliminate inconsistencies. Tables will be revised to show that all alternative plans have the same total acreage endpoint.

**Discussion.** Noted.

**Required Action.** The district will make noted changes in the draft feasibility report.

**Action Taken.** Noted changes made as directed (throughout report).

**HQUSACE Review Team Assessment.** Issue resolved.

(2) Prime and Unique Farmlands. Table 5-1, “Effects On Resources Of Principal National Significance”, states: “none in Project Area”. Need to be sure that report includes Natural Resources Conservation Service (NRCS) Form AD-1006 supporting this statement.

**District Response.** The District concurs with this comment. The Feasibility Report/EIS/EIR will include NRCS Form AD-1006.

**Discussion.** Noted.

**Required Action.** The district will include an unsigned draft version of the NRCS Form AD-1006 in the draft feasibility report.

**Action Taken.** An unsigned draft version of the NRCS Form AD-1006 was included as Appendix I (US Department of Agriculture Farmland Conversion Impact Rating) to the draft feasibility report.

**HQUSACE Review Team Assessment.** Issue resolved.

#### **f. Pipeline Lease Cost.**

1. Report provides discussion of benefits of using recycled water for pond 7 restoration. In the same discussion, it is emphasized how beneficial this recycled water will be for other non-project uses such as agriculture. This seems to detract from the analysis of supporting pipelines as part of the restoration project. This is probably a simple editorial/clarity issue. Extensive write-up makes logic/support train hard to follow.

Report needs to be modified to include a concise analysis and summary to support this feature.

2. Text at the bottom of page 63 indicates that a lease is required with Cargill to operate the eastern portion of the recycled water pipeline. It is not evident that the cost estimates for the alternatives or selected plan have included a cost for this lease. This cost should be addressed in the draft report.

**District Response.** The District will remove references to future agricultural uses for the pipeline from the Feasibility Report. The Cargill lease referenced on page 63 refers to a small portion of the pipeline that is currently owned by Cargill. As part of the South Bay Salt Pond acquisition, Cargill will be selling this pipeline to the Sponsor. The negotiations for this acquisition are scheduled to be completed in December 2002, and title transfer is anticipated in March 2003. Therefore, the lease will not be required. This will be reflected in the REP and the feasibility report.

**Discussion.** Noted.

**Required Action.** The district will include the Cargill transfer in the without project condition of the draft feasibility report.

**Action Taken.** Indication that the Cargill transfer has occurred was added to the without project condition of the draft feasibility report (Section 3.2.4.3 (Ponds 4, 5, 6, 6A, 7, 7A, and 8)).

**HQUSACE Review Team Assessment.** Issue resolved.

**5. UNRESOLVED AFB ISSUES.** The following issues from the AFB have not been resolved.

1. (Item 2(b)3(d) from the May 1, 2003 AFB memorandum) Because the pipeline will be a project feature for which the Sponsor should be responsible for OMRR&R, the proposal to somehow sell off the pipeline together with OMRR&R responsibilities is considered inappropriate. Objection to future use of the project pipeline by a third party would not be raised, if assurance that third party use would be consistent with project purposes and to sub-agreements defining O&M responsibilities were included. The feasibility report language should not be drafted so as to release the Sponsor of its OMRR&R duty on project features required during the OMRR&R phase.

**District Response.** The pipeline will be needed for a portion of the project life and will not be a permanent feature of the project. When the pipeline is no longer needed for desalination, the project will be able to function as designed without linkage to the pipeline. Therefore, the pipeline could be used for non-project purposes after that point. The Sponsor will be responsible for the OMRR&R of the pipeline only as long as the pipeline is required for project desalinization. This responsibility can be met through a third-party agreement. The Draft and Final Feasibility Reports will not release the Sponsor of its OMRR&R duty on project features required during the OMRR&R phase.

**Discussion.** See Discussion section of item 2(b)3(a).

**Required Action.** The district will develop a white paper that outlines alternatives ways in which the pipeline could be presented as part of the total project within the draft feasibility report. The sponsors' interests in the pipeline should be more clearly outlined within this white paper. Following review of this white paper, a conference call will be held among the vertical team. The conference call will determine how the pipeline will be treated in the draft feasibility report.

**Action Taken.** A white paper on the pipeline concept was written by the District and discussed during an IRC on 14 March 2003 (see IRC MFR dated 10 April 2003). Details regarding the pipeline were added to Section 6.2.9 (Recycled Water Pipeline) of the draft feasibility report.

**HQUSACE Review Team Assessment.** Issues regarding pipeline disposal remain outstanding; see Comment 3.d.4

**Required Action:** The final report will include a recommended plan that does not involve recycled water or a pipeline.

2. (Item 2(d) from the May 1, 2003 AFB memorandum) **Maintenance Costs.** Page 61 of the text indicates that the lack of sufficient maintenance funding has affected the ability of local entities to maintain the levees and flow control structures. Since the local sponsor will be required to maintain the restoration project after it is completed, the report should address their ability to fund and fulfill the maintenance requirements.

**District Response.** The District will complete an ability to pay analysis prior to completion of the final feasibility report. The Sponsor has provided the following preliminary information regarding their ability to fund their OMRR&R requirements:

The Sponsor's operations program is funded through a variety of sources. The budget is financed primarily through the State of California's General Fund. In addition, supplemental funding for specific projects can be obtained from a variety of alternative sources. In any given year, these funding sources can include the following revenue generating vehicles:

- CALFED: A State and Federal program to fund water resource and environmental conservation projects. In November, 2002, the CALFED Ecosystem Restoration Program approved a grant application from the Sponsor for \$4.5 million in state funds for implementation of the Napa Marsh project.
- State Bond Measures: Several State park and water bond measures have recently passed, namely Proposition 12, Proposition 13, Proposition 40, and Proposition 50. These bond measures have included significant funds for the Sponsor and other state agencies. These funds will be appropriated to the agencies by the state legislature over the next several years and could be directed towards Napa Marsh.



- Habitat Conservation Fund: The Sponsor is legislatively mandated to receive funds accruing to the Habitat Conservation Fund.
- Federal Grants: The Sponsor recently received a \$2 million grant under the North American Wetlands Conservation Act.
- Private Foundations and Individual Donations: The non-Federal sponsor applies for and receives grants from a variety of entities. Some of the recent foundations committing funds to the Sponsor include Ducks Unlimited.

**Discussion.** It was discussed that the district needs to clearly convey that the sponsor will continue to perform maintenance as required.

**Required Action.** The district will include a complete discussion of the sponsor's capabilities to support necessary maintenance activities in the draft feasibility report.

**Action Taken.** The sponsor's capability to support necessary maintenance activities is addressed in Section 7.4.2.1 (DFG Funding Sources), by way of its funding sources. OMRR&R activities are outlined in Section 6.3.4 (Operation, Maintenance, Repairs, Rehabilitation, and Refurbishment (OMRR&R)).

**HQUSACE Review Team Assessment.** Issue partially resolved; see section 3.e.1.

**Required Action:** See action for section 3.e.1.